

REMARKS

In the action of March 27, 2006, the examiner rejected claims 1, 3 and 5 as anticipated by Choquette et al.

Choquette teaches embossing an epoxy layer present on a substrate, such as a waveguide, a diffractive optic pattern (grating structure) by means of a master optic pattern member. The resulting embossed grating in the epoxy layer allows the in/out coupling of light into the waveguide or other substrate structure. Various grating profiles of different line spacing and groove shape may be produced, including, for example, sinusoidal or triangular. Examples of diffractive gratings include 1200 and 2400 lines/millimeter, as well as spacing of a single line of submicron length of 3600 lines per millimeter. The thickness of the embossed grating structure is correspondingly small (about 5 angstroms up to about 1000 angstroms). Such a structure is substantially less thick than applicant's epoxy layer and the resulting claimed 3-D structure, which is greater than 100 micrometers.

As indicated throughout applicant's disclosure, techniques such as Choquette for producing 3-D structures with very small thicknesses are well known. However, such techniques are not adaptable to produce structures with significantly greater thicknesses, which are necessary for parts such as gears and lenses, among other items. The method and the resulting article disclosed in Choquette is not capable of providing the specified 3-D structure thickness. Further, attempting to produce 3-D structures with the claimed thickness by use of Choquette's disclosed defractive grating process would not produce a structure with a continuously varying thickness and a smoothly varying topography.

Accordingly, amended claims 1, 3 and 5 are patentable over Choquette.

Allowance of the application is now respectfully requested.

This is a request for a one-month extension of time. Enclosed is the required fee of \$60. Any additional fees can be charged to deposit account No. 07-1900.

Respectfully submitted,
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